WHAT IS CLAIMED IS:

1. A multiwell plate for transfecting a eukaryotic cell wherein the bottom of at least some of the wells are at least partially coated with a composition comprising a metal salt.

2. The multiwell plate of claim 1, wherein the metal salt is a calcium salt.

3. The multiwell plate of claim 2, wherein the calcium salt is selected from the group consisting of calcium chloride and calcium acetate.

4. The multiwell plate of claim 1, wherein the composition further comprises a matrix complex.

5. The multiwell plate of claim 1, wherein the composition is retained on the multiwell plate.

6. The multiwell plate of claim 5, wherein the composition is retained on the multiwell plate with a matrix complex.

7. The multiwell plate of claim 6, wherein the matrix complex is selected from the group consisting of proteins, glycoproteins, peptides, polysaccharides, and polymers or combinations thereof.

8. The multiwell plate of claim 7, wherein said protein is selected from the group consisting of gelatin, collagen, laminin, fibronectin, and bovine serum albumin or a combination thereof.

9. The multiwell plate of claim 7, wherein said polymer is selected from the group consisting of hydrogels, biodegradable polymers, and biocompatible materials.

10. A cell culture/transfection device for transfecting a eukaryotic cell, comprising a solid surface, wherein the solid surface is coated with calcium chloride in a gel matrix.

11. The cell culture/transfection device of claim 10, wherein the surface is selected from the group consisting of a continuous surface, flasks, dishes, tubes, multi-well plates, slides, and implanted devices.

12. The cell culture/transfection device of claim 10, wherein the solid surface is glass, polystyrene or epoxy resin.

13. The cell culture/transfection device of claim 10, wherein the solid surface is selected from the group consisting of a slide and a multi-well plate.

14. A kit comprising:

the cell transfection device of claim 10;

eukaryotic cells to be transformed; and

at least one nucleic acid for transformation.

15. The kit of claim 14, wherein the eukaryotic cells are mammalian cells.

16. The kit of claim 14, wherein the eukaryotic cells are dividing cells or non-dividing cells.

17. The kit of claim 14, wherein the eukaryotic cells are transformed cells or primary cells.

18. The kit of claim 14, wherein the eukaryotic cells are somatic or stem cells.

19. The kit of claim 14, wherein the eukaryotic cell is a plant cell.

20. The kit of claim 14, wherein the eukaryotic cell is an insect cell.

21. The kit of claim 14, wherein the at least one nucleic acid is selected from the group consisting of DNA, RNA, DNA/RNA hybrid and chemically modified nucleic acids.

22. The kit of claim 21, wherein the chemically modified nucleic acid comprises a peptide nucleic acid.

23. The kit of claim 21, wherein the DNA is circular, linear, or single strand oligonucleotide.

24. The kit of claim 21, wherein the RNA is single stranded or double stranded.

25. The kit of claim 24, wherein the single-stranded RNA is a ribozyme.

26. The kit of claim 24, wherein the double-stranded RNA is siRNA.

27. A method for transfection of eukaryotic cells comprising:

providing a solid surface at least partially coated with a composition comprising a metal salt;

adding at least one nucleic acid or at least one polypeptide to be introduced into the eukaryotic cell onto the solid surface; and

seeding eukaryotic cells onto the solid surface at a sufficient density and under appropriate conditions for introduction of the nucleic acids or polypeptides into the eukaryotic cells.

28. The method of claim 27, wherein the surface is selected from the group consisting of flasks, dishes, tubes, continuous surface, multi-well plates, slides, and implanted devices.

29. The method of claim 27, wherein the solid surface is glass, polystyrene or epoxy resin.

30. The method of claim 27, wherein the metal salt is a calcium salt.

31. The method of claim 30, wherein the calcium salt is selected from the group consisting of calcium chloride and calcium acetate.

32. The method of claim 27, wherein the composition further comprises a matrix complex.

33. The method of claim 27, wherein the composition is retained on the solid surface.

34. The method of claim 33, wherein the composition is retained on the solid surface with a matrix complex.

35. The method of claim 34, wherein the matrix complex is selected from the group consisting of proteins, glycoproteins, peptides, polysaccharides, and polymers or combinations thereof.

36. The method of claim 35, wherein said protein is selected from the group consisting of gelatin, collagen, laminin, fibronectin, and bovine serum albumin or a combination thereof.

37. The method of claim 35, wherein said polymer is selected from the group consisting of hydrogels, biodegradable polymers, and biocompatible materials.

38. The method of claim 27, wherein the solid surface is selected from the group consisting of a slide and a multi-well plate.

39. The method of claim 27, wherein the eukaryotic cells are mammalian cells.

40. The method of claim 27, wherein the eukaryotic cells are dividing cells or non-dividing cells.

41. The method of claim 27, wherein the eukaryotic cells are transformed cells or primary cells.

42. The method of claim 27, wherein the eukaryotic cells are somatic or stem cells.

43. The method of claim 27, wherein the eukaryotic cell is a plant cell.

44. The method of claim 27, wherein the eukaryotic cell is an insect cell.

45. The method of claim 27, wherein the at least one nucleic acid is selected from the group consisting of DNA, RNA, DNA/RNA hybrid and chemically modified nucleic acids.

46. The method of claim 45, wherein the chemically modified nucleic acid comprises a peptide nucleic acid.

47. The method of claim 45, wherein the DNA is circular, linear, or single strand oligonucleotide.

48. The method of claim 45, wherein the RNA is single stranded or double stranded.

49. The method of claim 48, wherein the single-stranded RNA is a ribozyme.

50. The method of claim 48, wherein the double-stranded RNA is siRNA.

51. A method of determining whether a biomolecule can enter a cell comprising:

(a) providing a solid surface coated with a polymer or lipid to which said biomolecule can interact;

(b) adding the biomolecules to the solid surface such that the biomolecules interact with said polymer or lipid;

(c) seeding cells onto the surface with sufficient density and under appropriate conditions for introduction of the biomolecules into the cells; and

(d) detecting whether the biomolecule has been delivered to the cells.

52. The method of claim 51, wherein the biomolecules are selected from the group consisting of nucleic acids, proteins, peptides, sugars, polysaccharides, and organic compounds.

53. The method of claim 52, wherein the nucleic acids are selected from the group consisting of DNA, RNA, DNA/RNA hybrid and chemically modified nucleic acids.

54. The method of claim 53, wherein the chemically modified nucleic acid comprises a peptide nucleic acid.

55. The method of claim 53, wherein the DNA is circular, linear, or single strand oligonucleotide.

56. The method of claim 53, wherein the RNA is single stranded or double stranded.

57. The method of claim 56, wherein the single-stranded RNA is a ribozyme.

58. The method of claim 56, wherein the double-stranded RNA is siRNA.

59. The method of claim 51, wherein the cells are mammalian cells.

60. The method of claim 51, wherein the cells are dividing cells or non-dividing cells.

61. The method of claim 51, wherein the cells are transformed cells or primary cells.

62. The method of claim 51, wherein the cells are somatic or stem cells.

63. The method of claim 51, wherein the cell is a plant cell.

64. The method of claim 51, wherein the cell is an insect cell.